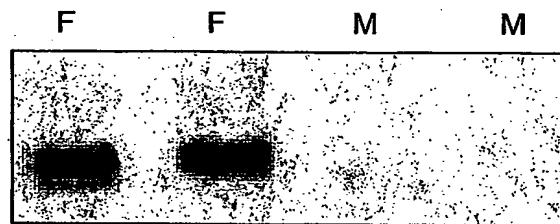
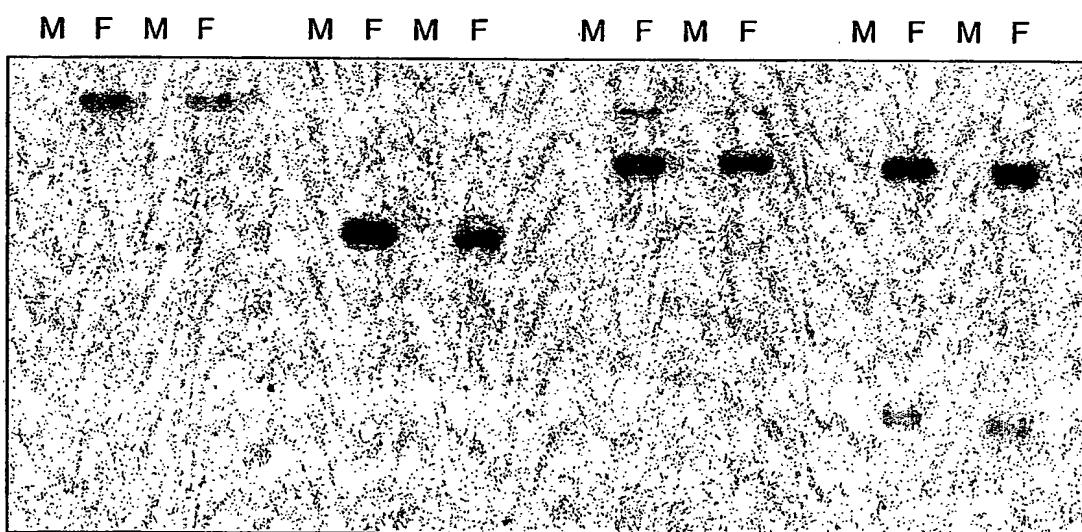


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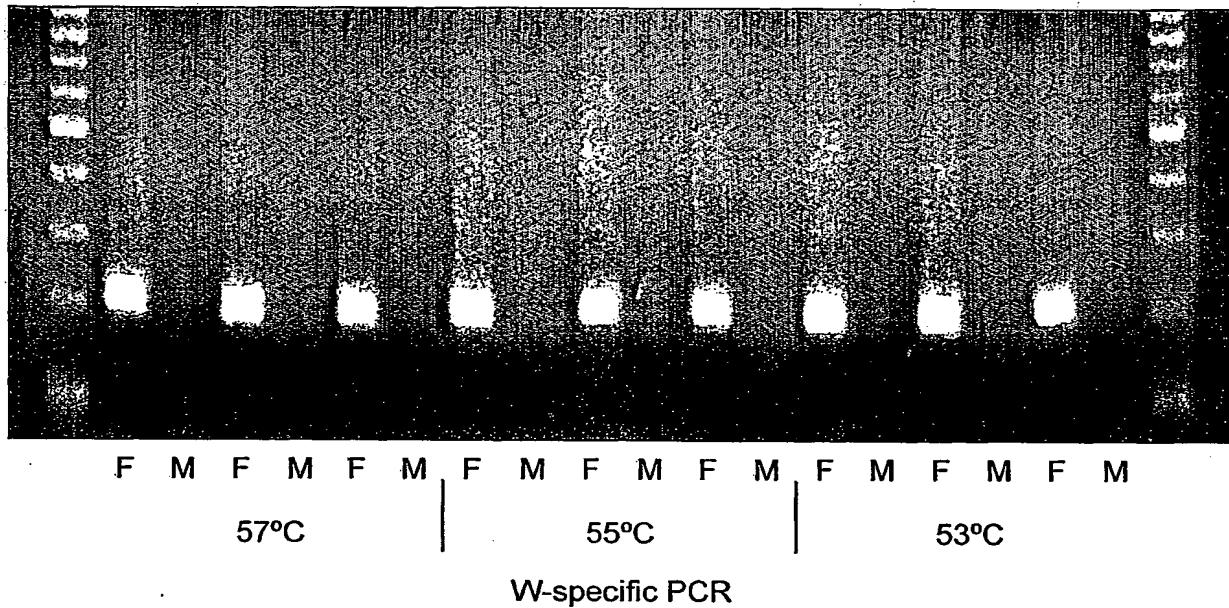
Day 4.5 whole embryo

FIG. 1

Southern analysis

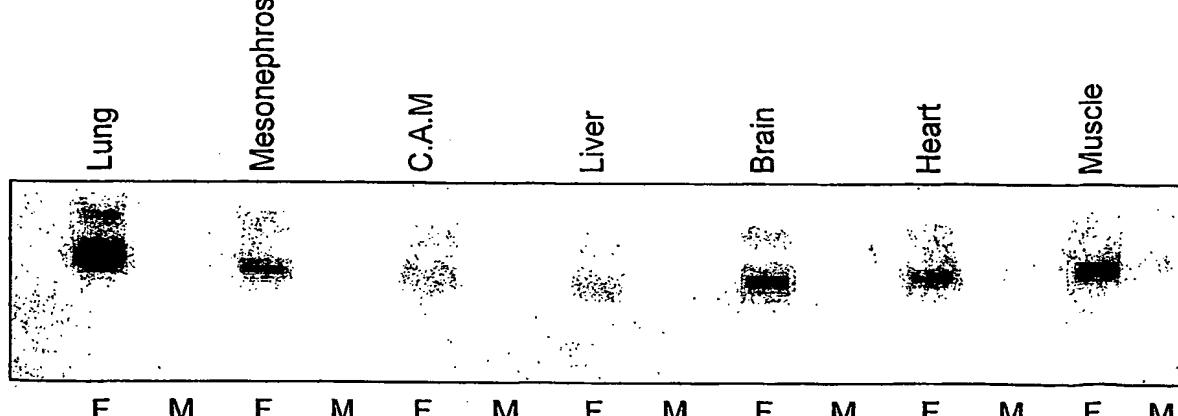
FIG. 2

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W-specific PCR

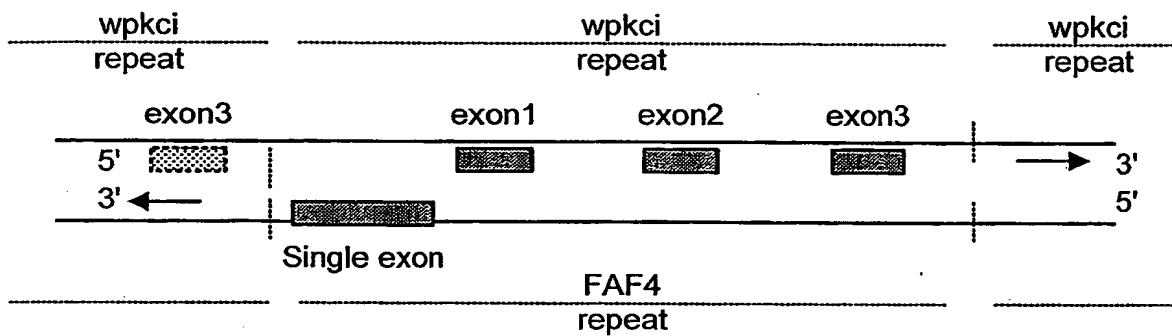
FIG. 3



Northern analysis of FAF mRNA expression in the tissue of developing chicken embryos at day 11.5: lung, mesonephros, chorioallantoic membrane (CAM), liver, brain, heart and muscle isolated from male (M) and female (F) embryos

FIG. 4

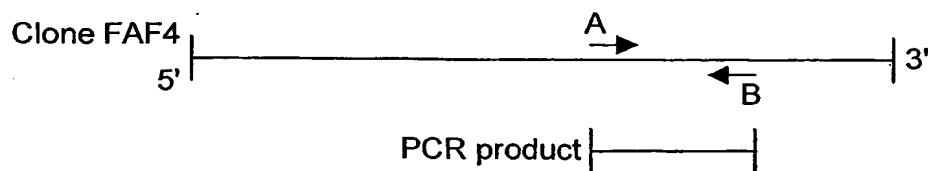
Position of the FAF4 796 bp sequence in relation to the w-pkci gene



Forward primer (A) = AGAATAAACGCCCTCGATT
Reverse primer (B) = CAGGTTCTCTTCGGTCG

Female-specific PCR primers

FIG. 5(a)



Relative position of the PCR 204 bp product with respect to the FAF4 796 bp sequence clone

FIG. 5(b)

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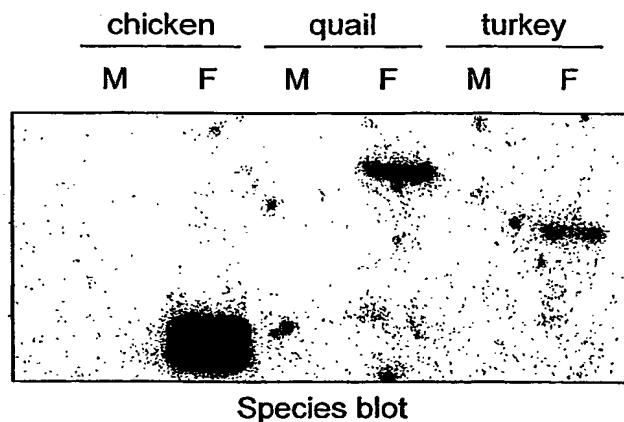


FIG. 6

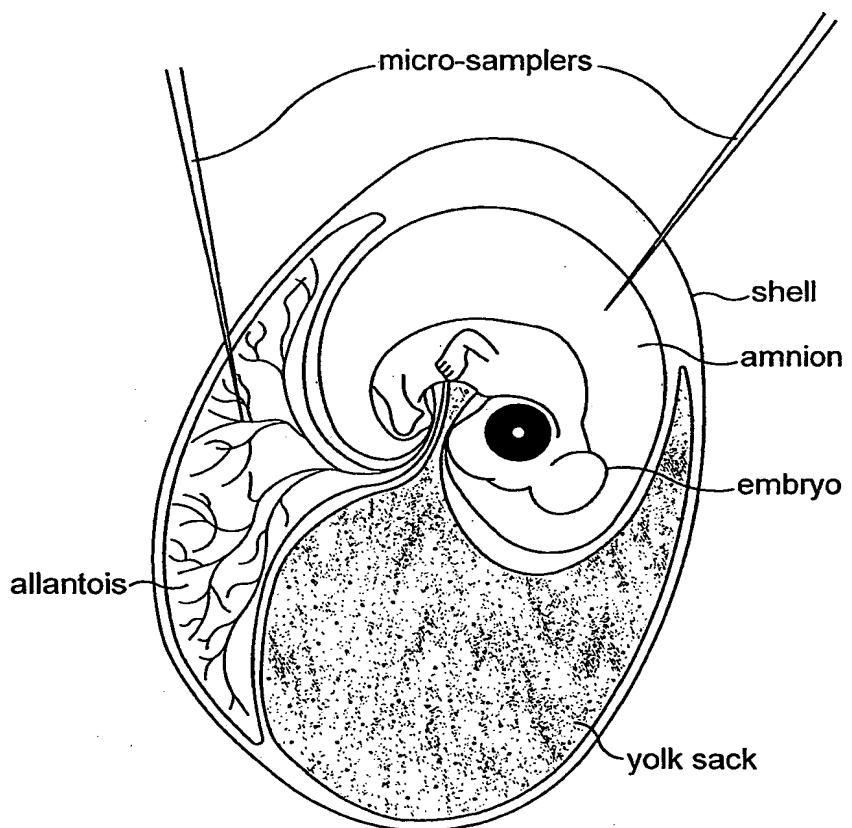


FIG. 7

FAF1

1 AGTGCCGTTA CTATGAGCAA CCCAAGGAGA ACCAGACAGT ATATATATAT
 51 GTGTATGACT CTGCAAAACC TTTGTAGCGC GCATTTCCC TTGCTGTGTT
 101 TTCCCTCCGC CTGTGATCGA CCGAGAAAGA GAACCTGCCCT CTCTACCCCT
 151 GCTTCCAACC AGAACATCATGA AACACTGTCA CACTGCGGTG GTAACCATCT
 201 CTGCATTCCT GTAACAAATC CTTGCTTTTC TTTCTGTCTT TTTACTATTG
 251 CTTTCGTCAT CCCACCTCCC ATCCCCGGC CTAGCTAACCC AAAACTTCT
 301 ACAATAAACCGG GGTTGGGC

FIG. 8

FAF2

1 GCGCCTGGGG GCTTTTGTT GCCGATCCCT CCCGTCAAAT GGCGTCAAA
 51 TGTTGACGGG GCAGGCCAGG AGTTTGCCAT CTTTGCATGA AGGGACAGGC
 101 AACTCGGGGA GAGTGCAAGG ATGTTGCTAG CATGCGCAGG GAGAAAATTC
 151 GACAGGCCAA AGCCCAGCAC GACCTTAATA TGGCCGCCAT TGTGAGAT
 201 GATTAAAATC ATGTTTTAC GAACATATTA ATAAGAGCAA GAGGAGGGCC
 251 AAGGAGAACATC TCCCTCTTT ATTCAACGCG GTGGGGAAACA TCACCATCGA
 301 GGAGGAGGGA AAGGCTGAAG TTCCCAACGC CTTCTTCACT TCTGGCTTTA
 351 GCAGTGAGAC CTGCTATCCC CAGGGTACTC AGCCCCCTGA GCTGGAAGAC
 401 GGGGCCGGGG AGCAGAATAA ACGCCCCTCG ATTCCCAGTG CCTTCTTTAC
 451 TTCTGTCTGT TTCTGACTGT TGCACCTGTG CTGGACGTGC CGTTACTATG
 501 AGTAACCCAA GGAGAACCGG ACAGTATATA TATGTATGGA CCCTGCAAA
 551 ACTTTGCGCG CGCTTTCCC TTGTTGTGTT TTCCCTCCGC CTGTGATCGA
 601 CCGAGAAAGA GAACCCGCC CCCCCCGCT TCCAACCGGA ATCATGAAAC
 651 ATTGTACACAC TGCGGTGGTA ACCATCTCTG CATTCTGTGA ACAAAATCCTT
 701 GCTTTCTTT TCTGTCTTT CACTATTGCT TTCTGTCATCC CACCTCCCAT
 751 CCCCCAGGCT AGCTAACCAA AACGTTTAC AATAAACCGG TTGGGC

FIG. 9

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FAF3

1 CGGTCAAATG GCCGTCAAAT GTTGGCGGGG CAGGCCAGGA GTTGCCATC
51 TTTGGATGAA GGACGGGCAA CTCGGGGAGA GTGCCAGGAT GTTGCTAGCA
101 TCGCAGGGAA GAAAATTCGA CAAGCCAAAG CCCAGCAAGA CCTTAATCTG
151 GCCGCCATTG TTCGAGATGA TTAAAACAAT GTTTTACGA ACGTATTAGT
201 AGCAAGAGGA GGGCCAAGGA GAATCTCCCT TCTTTATTAG ACGCGGTGGG
251 GAACATCACC ACCGAGGAGG AGGAAAAGGC TGAAGTTCTC AACGCCTTCT
301 TCACTTCTGT CTTTAGCAGT GAGACCAGCT ATTCTCAGGG TACTCAGCCC
351 CCTGAGCTGG AAGACGGGGC CGGGGAGCAG AATAAACGCC CCTCAATTCC
401 CAGTGCCTTC TTTACTTCTG TCTGTTCTGA CTGTTGCACC GGTGCTGGAC
451 GTGCCGTTAC TATGAGCAAC CCAAGGAGAA CCAGACAGTA TAGATATATA
501 TATATGTATG GACTCTGCAA AAACTTTGT GCGCGCTTT CCCTTGCTGT
551 GTTTCCCTTC CGCCTGTGAT CGACCGAGAA AGAGAACCTG CCCCCCCCACC
601 CCTGCTTCCA ACCAGAATCG TGAAACATTG TCACACTGCG GTGGTAACCA
651 TCTCTGCATT CCTGTAACAA ATCCTTGCTT TTCTTTCTG TCTTTTCACT
701 ATTGCTTTCG TCATCCCGCC TCCCATCCCC AGGCCTAGCT AACCAAAACT
751 TTCTACAATA AACCGGTTGG GC

FIG. 10

FAF4

1 GGCCTGGGG GCTTTGGT GCCGATCCCT CCCGTCAAAT GGCGTCAA
51 TGTTGACGGG GCAGGCCAGG AGTTGCCAT CTTGCATGA AGGGACAGGC
101 AACTCGGGGA GAGTGCAAGG ATGTTGCTAG CATGCGCAGG GAGAAAATTC
151 GACAGGCCAA AGCCCAGCAC GACCTTAATA TGGCCGCCAT TGTTTGAGAT
201 GATTAAAATC ATGTTTTAC GAACATATTA ATAAGAGCAA GAGGAGGGCC
251 AAGGAGAAC TCCCTCTT ATTCAACGCG GTGGGAAACA TCACCATCGA
301 GGAGGAGGGAA AAGGCTGAAG TTCCCAACGC CTTCTTCACT TCTGGCTTA
351 GCAGTGAGAC CTGCTATCCC CAGGGTACTC AGCCCCCTGA GCTGGAAGAC
401 GGGGCCGGGG AGCAGAATAA ACGCCCCTCG ATTCCCAGTG CCTTCTTAC
451 TTCTGTCTGT TTCTGACTGT TGCACCTGTG CTGGACGTGC CGTTACTATG
501 AGTAACCCAA GGAGAACCGG ACAGTATATA TATGTATGGA CTCTGAAAAA
551 ACTTTGCGCG CGCTTTCCC TTGTTGTGTT TTCCCTCCGC CTGTGATCGA
601 CCGAGAAAGA GAACCTGCC CCCCCCGCT TCCAACCGGA ATCATGAAAC
651 ATTGTACACAC TGCGGTGGTA ACCATCTCTG CATTCTGTAA ACAAAATCCTT
701 GCTTTCTTT TCTGTCTTT CACTATTGCT TTCGTACATCC CACCTCCAT
751 CCCCAGGCCT AGCTAACCAA AACGTTTAC AATAAACCGG TTGGGC

FIG. 11

FAF5

1 CGCAACGGGC GCTCGTTCCA GAGGGCCTGC GAGCGCGCTA GGGTGGGGGA
51 GGGGTGGGAC GGGAGGGCAA GGGAAAGAAC GCGCGACGCG CAGCAAAGCC
101 GCGGCTACCT CCTCGTCCAC AACGGCTCCT CCTCGCGGAT AACGTTGGCG
151 GAGAACTCCT GGCAGGGCGAC TTTTCCAAG AGAGCGGCGC CACCGCGCCA
201 GGCGGCCGGC GACCTAACGA TCCCAGCCGGC CATGACGGCG CCCGCTCGCT
251 ACAACACTCC CTCAGCCCCA AACCTCCCCA GCACGGCTCA GCATGGCTCA
301 GCACGGCTCG GCTCGCCTCG GCTCGCCTCG GCCCGGTCCC GCCCTCGCG
351 GCGCTCATTG GGCGACAGA GCGCCGCGGC CGTTTCCGCG CCTCGGTTGG
401 CTGTCTCGCC TGCCCTTTAA GCTTGTCCCC GCCCTGTAGG CGGCTCCGCT
451 CCCGTCGGCC CGGTGCTTAT CGGGGCTCAG GGACTTAGGC GCTGGGGCT
501 TTTTGGTGCC GATCCCTCCC GTCAAATGGC CGTCAAATGT TGACGGGGCA
551 GGCCAGGAGT TTGCCATCTT TGCATGAAGG GACAGGCAAC TCAGGGAGAG
601 TGCAAGGATG TTGCTAGCAT GCGCAGGGAG AAAATTGAC AGGCCAAAGC
651 CCAGCACGAC CTTAATATGG CCGCCATTGT TTGAGATGAT TAAACTATG
701 TTTTTACGAA CATATTAATA AGAGCAAGAG GAGGGCCAAG GAGAATCTCC
751 CTTCTTTATT CAACCGGGTG GGGAACATCA CCATCGAGGA GGAGGGAAAG
801 GCTGAAGTTC CCAACGCCTT CTTCACTTCT GGCTTAGCA GTGAGACCTG
851 CTATCCCCAG GGTACTCAGC CCCCTGAGCT GGAAGACGGG GCCGGGGAGC
901 AGAATAAACG CCCCTCGATT CCCAGTGCCT TCTTACTTC TGTCTGTTTC
951 TGACTGTTGC ACCTGTGCTG GACGTGCCGT TACTATGAGT AACCCAAGGA
1001 GAACCGGACA GTATATATAT GTATGGACTC TGCAAAACT TTGCGCGCGC
1051 TTTTCCCTTG TTGTGTTTC CTTCCGCCTG TGATCGACCG AGAAAGAGAA
1101 CCTGCCCCCC CCCCCCTTCC AACCGGAATC ATGAAACATT GTCACACTGC
1151 GGTGGTAACC ATCTCTGCAT TCCTGTAAACA AATCCTTGCT TTTCTTTCT
1201 GTCTTTCAC TATTGTTTC GTCATCCCAC CTCCCATCCC CAGGCCCTAGC
1251 TAACCAAAAC GTTTACAAT AAACCGGTTG GGC

FIG. 12

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TURKEY FAF REGION

1 TGCCGTTACT ATGAGCAACC CAAGGAGAGC CAGACAGTGT ATATATGTAT
 51 GGACTCTGCA AAAACTTTGT GCGCGCTATT CCCTTGTGT GTTTCCCTC
 101 CGCCTGTGAT CGACCGAGAA AGAGAACCTG CACCCCCCAG CCCCCTGCC
 151 AACCAGACTC ATGAAACATT GTGACACTGC GGTGGTAACA ATCTCTGCCT
 201 TCCTGTAACA AATCCTCGCT TTTCTTTCT GTCTTTTAC TATTGCTTC
 251 TTCGTCCCAC CTCCCATCCC CAGGCCTAGC TAACC

FIG. 13

QUAIL FAF REGION

1 ACTAGTGATT GCCGTTACTA TGAGCAACCC AAACAGTGGAA CAGTGTATAT
 51 ATAAGGGCTG CAAAAATAAG ACCATATGAT TTCCCTTGTA TTTTCCTTCT
 101 GCCTGTGATC GGCCAAGAAA GAGGGAGAGA ATTGACAGCC TGCACTGCCT
 151 CTGCTGACCA GACTCATGGA ACACGTGTCAT ACTGCAGTGA TAACTATCTC
 201 TGCATTCTTA TAACAAACCC TTGCTTTAT TTTCTTTCTT TTTACTATCA
 251 TTTTCTTCAT CCCACCTCCT GTCCCCAGGC CTAGCTAACCC AATC

FIG. 14**FAF1**

5'3' Frame 1

ORF1

Met S N P R R T R Q Y I Y M C M T L Q N L C S A H F P L L C F P S A C
 D R P R K R T C P S T P A S N Q N H E T L S H C G G N H L C I P V T N
 P C F S F C L F T I A F V I P P P I P R P S **Stop**

5'3' Frame 2

ORF2

Met K H C H T A V V T I S A F L **Stop**

Putative ORFs for isolated chicken FAF clones

FIG. 15 (a)**SUBSTITUTE SHEET (RULE 26)**

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FAF2

5'3' Frame 1

ORF1

Met L L A C A G R K F D R P K P S T T L I W P P L F E M I K T M F L R
T Y Stop

ORF2

Met Y G P C K N F A R A F P L L C F P S A C D R P R K R T R P P P A S
N R N H E T L S H C G G N H L C I P V T N P C F S F L S F H Y C F R H
P T S H P Q A Stop

5'3' Frame 2

ORF3

Met L T G Q A R S L P S L H E G T G N S G R V Q G C C Stop

ORF4

Met D P A K T L R A L F P C C V F L P P V I D R E R E P A P P P L P T
G I M K H C H T A V V T I S A F L Stop

5'3' Frame 3

ORF5

Met A V K C Stop

ORF6

Met K G Q A T R G E C K D V A S M R R E K I R Q A K A Q H D L N M A A
I V Stop

ORF7

Met S N P R R T G Q Y I Y V W T L Q K L C A R F S L V V F S F R L
Stop

FIG. 15 (b)**FAF3**

5'3' Frame 1

ORF1

Met L A G Q A R S L P S L D E G R A T R G E C Q D V A S M R R E K I R
Q A K A Q Q D L N L A A I V R D D Stop

ORF2

Met D S A K T F V R A F P L L C F P S A C D R P R K R T C P P T P A S
N Q N R E T L S H C G G N H L C I P V T N P C F S F L S F H
Y C F R H P A S H P Q A Stop

5'3' Frame 2

ORF3

Met A V K C W R G R P G V C H L W M K D G Q L G E S A R M L L A C A G
R K F D K P K P S K T L I W P P L F E M I K T M F L R T Y Stop

5'3' Frame 3

ORF4

Met S N P R R T R Q Y R Y I Y M Y G L C K N F C A R F S L A V F S F R
L Stop

FIG. 15 (c)

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FAF4

5'3' Frame 1

ORF1

```
Met Y G L C K N F A R A F P L L C F P S A C D R P R K R T C P P P A S
N R N H E T L S H C G G N H L C I P V T N P C F S F L S F H Y C F R H
P T S H P Q A Stop
```

ORF2 - same as FAF2, ORF1.

5'3' Frame 2

ORF3

```
Met D S A K T L R A L F P C C V F L P P V I D R E R E P A P P P L P T
G I M K H C H T A V V T I S A F L Stop
```

ORF4 - same as FAF2, ORF3

ORF5 - same as FAF2, ORF5

ORF6 - same as FAF2, ORF6

ORF7 - same as FAF2, ORF7

FIG. 15 (d)**FAF5**

5'3' Frame 1

ORF1

```
Met T A P A R Y N T P S A P N L P S T A Q H G S A R L G S P R L A S A
R S R P R R R S L G R Q S A A A V S A P R L A V S P A L Stop
```

ORF2 - same as FAF2, ORF5

ORF3 - same as FAF2, ORF6

ORF4 - same as FAF2, ORF7

5'3' Frame 2

ORF5

```
Met A Q H G S A R L G S P R P G P A L G G A H W A D R A P R P F P R L
G W L S R L P F K L V P A L Stop
```

ORF6 - same as FAF2, ORF1

ORF7 - same as FAF4, ORF1

ORF8 - same as FAF2, ORF3

ORF9 - same as FAF4, ORF2

FIG. 15 (e)

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